

## **Estimation of noise in gray-scale and colored images using median absolute deviation (MAD)**

### **ABSTRACT**

This paper presents a new algorithm for estimation of noise (i.e., level of noise) in both gray-scale and color images (GSI, CI). The new technique is called median-absolute deviation (MAD). This technique does not require an explicit estimation of the noise level or the signal to noise ratio (SNR), which is usually needed in most of the popular enhancement methods. Performance of the proposed method is evaluated on noisy images in real conditions and with artificial noise.

**Keyword:** Noise estimation; Image de-noising; Types of noise; RGB images; MAD.